

## WEST Search History

DATE: Monday, August 04, 2003

<u>Set Name</u> side by side	<u>Query</u>	<u>Hit Count</u>	<u>Set Name</u> result set
<i>DB=USPT,JPAB,EPAB,DWPI,TDBD; PLUR=YES; OP=OR</i>			
L5	fentanyl same polymer	36	L5
L4	fentanyl same microsphere\$	1	L4
L3	fentanyl and micelle\$	51	L3
L2	fentanyl same micelle\$	1	L2
L1	lecithin adj5 micelle\$	56	L1

END OF SEARCH HISTORY

WEST



Generate Collection

Print

L1: Entry 18 of 56

File: USPT

Aug 31, 1999

DOCUMENT-IDENTIFIER: US 5945409 A

TITLE: Topical moisturizing composition and method

Brief Summary Text (37):

Lecithin is described as a hygroscopic waxy solid which only forms an emulsion after dissolution with an organic solvent. The phosphatidylcholine (PC) may be characterized as amphiphilic because a polar head group is hydrophilic and has two lipophilic carbon tails. This amphiphilic property permits the surface polar heads in the aqueous phase to contract, assuming the shape of sphere. Lecithin emulsions are aggregates of micelles in water and inherently have poor stability. Williman et al., Journal of Pharmaceutical Sciences 81:871-874 (1992), found that PC, with a minimum purity of 95%, formed giant spaghetti-like micellar gels after it was dissolved in an appropriate nontoxic organic solvent. This structure is called a lecithin organogel and is thought to have a linear rather than the usual spherical structure. While not wanting to be bound by the following statement, it may be reasonable to assume the water molecules at the polar head of the PC promote additional cohesion by hydrogen bonding and thereby promote gel formation. Soy lecithin containing less than 95% PC will not gel. PC of 95% purity is expensive and what is needed is a composition and method which is cost-effective as well as safe for daily use.

**WEST**

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L1: Entry 10 of 56

File: USPT

Sep 11, 2001

DOCUMENT-IDENTIFIER: US 6288130 B1

TITLE: Oil-free glycerophospholipid formulations and method for the production thereof

Brief Summary Text (8):

The physiological importance of glycerophospholipids, and especially of phosphatidyl choline, as a component of biological membranes has been known for a long time. In the wake of numerous scientific studies in which lecithin was proved to have various beneficial effects in the human body, lecithins have been developed over the past few years which are intended especially as dietary supplements or as so-called nutraceuticals for a health-conscious consumer segment. In many cases lecithin fractions are used which have been enriched with certain glycerophospholipids, eg, fractions containing an elevated phosphatidyl choline content, which can be prepared, eg, by means of solvent extraction with ethanol. These products are usually offered in the form of powders, granules or tablets. In the production of lecithin-containing beverages, however, the limited solubility or dispersibility of the glycerophospholipids in water often constitutes a limitation, which is why, from a technical point of view, the production of oil-free lecithins with improved solubility or dispersibility in water is desirable. In the pharmaceuticals industry, due to traditionally good experience, use is made predominantly of lecithins obtained from eggs, and sometimes also of soya-based lecithins enriched with phosphatidyl choline. Besides peroral dosage forms, these lecithins are available in forms for intravenous administration, eg, as parenteral fat emulsions. On account of the high natural phosphatidyl choline content, fat-free egg-based lecithins are particularly suitable for drug formulations in reverse micelles (so-called liposomes). The range of applications of lecithins used pharmaceutically could also be enlarged if their solubility or dispersibility in water were improved.

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L1: Entry 9 of 56

File: USPT

Sep 18, 2001

DOCUMENT-IDENTIFIER: US 6290987 B1

TITLE: Mixed liposome pharmaceutical formulation with amphiphiles and phospholipids

Detailed Description Text (11):

To 10 mL of the insulin solution prepared in Example I, 50 mg of sodium lauryl sulphate was added and dissolved completely. In 50 mL of water, 50 mg lauramidopropyl betain and 50 mg polydecanol 9-lauryl ether were added and dissolved and then mixed with the insulin solution. This mixture was then sprayed under pressure into a 1 wt. % solution of Phospholipon-H (trade mark) saturated lecithin, to form mixed micelles. This procedure gave a multilamellar, mixed amphiphile insulin solution with 50 units/mL.

Detailed Description Text (18):

To 10 mL of the insulin solution prepared in Example I, 50 mg of sodium lauryl sulphate was added and dissolved completely. This mixture was then sprayed under pressure into a 1 wt. % solution of Phospholipon-H (trade mark) saturated lecithin to form mixed micelles. This procedure gave a multilamellar, mixed amphiphile insulin solution with 50 units/mL.

Detailed Description Text (39):

To 10 mL of the insulin solution prepared in Example I, 100 mg of sodium lauryl sulphate was added and dissolved completely. In 50 mL of water, 100 mg sodium hyaluronate, 0.5 mL glycolic acid and 0.5 mL propylene glycol were added and dissolved and then mixed with the insulin solution. This mixture was then sprayed under pressure into a 1 wt. % solution of Phospholipon-H (trade mark) saturated lecithin, to form mixed micelles.

**WEST**☐ **Generate Collection** **Print**

L1: Entry 40 of 56

File: USPT

Nov 5, 1985

DOCUMENT-IDENTIFIER: US 4551449 A

TITLE: Avoidance of the immunosuppressive and antiproliferative effects of lipid emulsions

Brief Summary Text (3):

The need for an emulsifying agent in these clinically used lipid emulsions results from the fact that the oil (e.g., soybean, safflower) cannot be dissolved or suspended in the aqueous solution required for intravenous infusion. The use of lecithin, a phospholipid, to form a stable emulsion of the oil comes from the knowledge that when phospholipids are sonicated in aqueous solutions, they become micelles which remain in suspension and also can hold an oil in suspension. Other natural compounds, such as cholesterol, have also been used, in combination with phospholipids such as lecithin, in laboratory studies to form micelles, but cholesterol or other sterols have never been used as emulsifying agents in lipid emulsions for human i.v. infusion.

Brief Summary Text (4):

Separately from inhibitory effects on cellular functions of the lipid emulsion which are used in clinical practice (discussed in the next paragraph), micelles of lecithin and/or cholesterol have been the subject of laboratory studies directed toward understanding the exchange of cell membrane lipids with their extracellular environment. These studies have demonstrated that the lipid composition of the extracellular environment can alter the lipid composition of the cell membrane and modulate certain cellular processes including cell proliferation. Exposure of cells to lecithin micelles may interfere with certain cellular functions. Whether micelles composed of a combination of lecithin and cholesterol have less inhibitory effects has not yet been resolved in the published literature; some studies have shown less, and some studies equal, inhibition by micelles composed of lecithin and cholesterol versus lecithin alone. No studies of these lipids in combination with the oil used in lipid emulsions have been published.

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L1: Entry 43 of 56

File: USPT

Mar 16, 1982

DOCUMENT-IDENTIFIER: US 4320121 A

TITLE: Method of emulsifying cholesterol, cholesterol esters and triglyceride compounds

Detailed Description Text (40):Ability to Deplete Cholesterol from Lecithin-Cholesterol MicellesDetailed Description Text (41):

The ability of the synthetic compounds and lecithin to deplete cholesterol from lecithin micelles saturated with cholesterol were tested by determining the amount of .sup.3 H cholesterol that could be depleted per unit of phospholipid tested.

Detailed Description Text (44):

The synthetic compounds demonstrate an enhanced ability to deplete cholesterol from lecithin micelles saturated with cholesterol. The enhanced amount and kinetics of the cholesterol depletion must also be related to the altered hydrophobic to hydrophobic balance in the synthetic compounds compared to lecithin.

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L1: Entry 45 of 56

File: USPT

Feb 20, 1979

DOCUMENT-IDENTIFIER: US 4140579 A

TITLE: Method of testing for phospholipases using a composition containing a uniform dispersion of a phospholipid

Brief Summary Text (8):

Also, in order to obtain a suspension of lecithin in an aqueous based saline solution when using purified lecithin, the lecithin-saline solution must be sonicated (bombarded by sound waves) to break the lecithin down into micelles. The micelles then form a suspension in the solution. However, the micelles formed by sonication are not uniform, and, thus, the suspension in the saline solution is not uniform. This makes it extremely difficult to get consistent results. Further, because lecithin breaks down very rapidly at elevated temperatures, the purified lecithin cannot be sterilized. This means that a sterilized lecithin-saline solution cannot be obtained. Thus, when purified lecithin is used, the test cannot have clinical application in instances in which a sterile solution is necessary. It is also difficult to obtain the same results with phospholipase enzymes from different genera when using purified lecithin derived from different lecithin sources, e.g. purified lecithin derived from egg yolks or soybeans.

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L5: Entry 30 of 36

File: EPAB

Jul 22, 1999

DOCUMENT-IDENTIFIER: WO 9936071 A1

TITLE: BIODEGRADABLE POLYMER MATRICES FOR SUSTAINED DELIVERY OF ANESTHETICS

Abstract Text (1):

CHG DATE=19990902 STATUS=O>The invention herein relates to biodegradable polymer matrices for sustained delivery of anesthetics or more particularly, to a sustained release anesthetic preparation where fentanyl-based anesthetic is incorporated into a biodegradable polymer.



**WEST**

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L5: Entry 28 of 36

File: USPT

May 13, 1986

DOCUMENT-IDENTIFIER: US 4588580 A

**\*\* See image for Certificate of Correction \*\*****\*\* See image for Reexamination Certificate \*\***

TITLE: Transdermal administration of fentanyl and device therefor

Detailed Description Text (17):

The water-ethanol systems described in Table 2 possess certain unique characteristics when used in combination with rate controlling membranes such as low density polyethylene (LDPE), ethylene-vinyl acetate (EVA) copolymers, (0-40% and preferably 5-18% VA) heat sealable polyesters, and elastomeric polyester block copolymers such as the HYTREL.RTM. polymers available from DuPont and described in U.S. Pat. No. 4,127,127 which is incorporated herein by reference which exert substantial control on the fentanyl release rate without significantly effecting the ethanol release rate. This produces a dynamic situation in which the relative concentration of the ethanol in the reservoir changes with respect to the relative concentration of water and drug as the system is used. Since fentanyl and its derivatives are substantially more soluble in ethanol than water, the thermodynamic activity of the drug in the reservoir does not decrease as would normally be expected as the drug is delivered from the system. The driving force causing the drug to migrate through the rate controlling membrane is the thermodynamic activity of the drug in the solvent rather than the absolute concentration. Thus, the more rapid depletion of the ethanol causes the saturation concentration of the drug in the aqueous reservoir to decrease. By appropriate adjustment of the ethanol and drug delivery rates from the system, the activity of the drug can be maintained constant or even caused to increase during the lifetime of the system.

Detailed Description Text (29):

A multilaminate transdermal therapeutic system of the type described with respect to FIG. 2 was prepared by adding low molecular weight polyisobutylene PIB (average molecular weight of 35,000) and high molecular weight PIB (average molecular weight 1,200,000) to a stirring vessel in a ratio of 1.25 to 1. Light mineral oil (MO) was added to the same vessel with a ratio of approximately 1.125 to 1 part of (PIB). Heptane was added and the mixture was stirred until the polymers dissolved. Sufficient fentanyl base was added to the solution to generate a blend of 20 percent fentanyl in the PIB/MO. The polymer-drug blend was solvent cast onto an occlusive backing such as described in Example 1 and allowed to evaporate to form approximate 0.05 mm thick drug reservoir. Microporous polypropylene film saturated with mineral oil was pressure laminated to the reservoir layer. A PIB/MO mixture as described above but containing sufficient additional fentanyl to provide a 2 percent loading of fentanyl as undissolved solid was cast in a layer approximately 0.05 mm thick on a siliconized polyester release liner film and the thus formed composite laminates were laminated together to form a device as shown in FIG. 3. Individual systems were die cut from this laminated film in the sizes of 2.5, 5, 10 and 20 cm circles and were packaged. The in vitro fentanyl flux from the systems produced according to this example through cadaver skin at 32.degree. C. into an infinite sink are shown in FIG. 6. Samples differing from those described above by having a solid drug loading of 3.2 % were also fabricated. As can be seen from FIG. 6, 2% solid drug was adequate to produce a rapid onset of therapy without an unnecessarily high initial drug release rate and after the initial transitory period both systems provided a steady release rate of approximately 1.8 .mu.g/cm.sup.2 /hr for up to 70 hours.

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L5: Entry 19 of 36

File: USPT

Aug 12, 1997

DOCUMENT-IDENTIFIER: US 5656286 A

TITLE: Solubility parameter based drug delivery system and method for altering drug saturation concentration

Detailed Description Paragraph Table (59):

		EXAMPLE 83 COMPONENT PERCENT BY WEIGHT	
		Polysiloxane Adhesive 63.00 (BIO-PSA X7-4303)	
Ethylene/Vinyl Acetate	15.00	<u>Polymer</u> (Elvax 40W)	Butylene Glycol 5.00 Oleic Acid 8.00
Tocopherol Acetate	3.00	(Vitamin E Acetate)	<u>Fentanyl</u> 6.00 100.00

**WEST**[Generate Collection](#)[Print](#)**Search Results - Record(s) 1 through 30 of 36 returned.**☐ 1. Document ID: US 6569449 B1

L5: Entry 1 of 36

File: USPT

May 27, 2003

US-PAT-NO: 6569449

DOCUMENT-IDENTIFIER: US 6569449 B1

TITLE: Transdermal delivery of opioid antagonist prodrugs

DATE-ISSUED: May 27, 2003

## INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Stinchcomb; Audra L.	Latham	NY		
Swaan; Peter W.	Columbus	OH		

US-CL-CURRENT: 424/449; 424/443, 424/448

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KMIC
Draw Desc	Image										

☐ 2. Document ID: US 6488953 B2

L5: Entry 2 of 36

File: USPT

Dec 3, 2002

US-PAT-NO: 6488953

DOCUMENT-IDENTIFIER: US 6488953 B2

TITLE: Oral transmucosal delivery

DATE-ISSUED: December 3, 2002

## INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Halliday; Janet Anne	Bo'ness			GB
Robertson; Steven	Motherwell			GB

US-CL-CURRENT: 424/434; 424/435

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KMIC
Draw Desc	Image										

☐ 3. Document ID: US 6425892 B2

L5: Entry 3 of 36

File: USPT

Jul 30, 2002

US-PAT-NO: 6425892

DOCUMENT-IDENTIFIER: US 6425892 B2

TITLE: Device for transdermal electrotransport delivery of fentanyl and sufentanil

DATE-ISSUED: July 30, 2002

## INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Southam; Mary	Menlo Park	CA		
Bernstein; Keith J.	Somerville	NJ		
Noorduyn; Henk	Bergen op Zoom			NL

US-CL-CURRENT: 604/501

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KMIC
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☐ 4. Document ID: US 6267984 B1

L5: Entry 4 of 36

File: USPT

Jul 31, 2001

US-PAT-NO: 6267984

DOCUMENT-IDENTIFIER: US 6267984 B1

TITLE: Skin permeation enhancer compositions comprising a monoglyceride and ethyl palmitate

DATE-ISSUED: July 31, 2001

## INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Beste; Russell D.	Mountain View	CA		
Hamlin; Richard D.	Newark	CA		

US-CL-CURRENT: 424/449; 424/447, 424/448, 424/484, 424/485, 424/486, 424/487, 424/488

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KMIC
Draw Desc	Image										

☐ 5. Document ID: US 6221383 B1

L5: Entry 5 of 36

File: USPT

Apr 24, 2001

US-PAT-NO: 6221383

DOCUMENT-IDENTIFIER: US 6221383 B1

TITLE: Solubility parameter based drug delivery system and method for altering drug saturation concentration

DATE-ISSUED: April 24, 2001

## INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Miranda; Jesus	Miami	FL		
Sablotsky; Steven	Miami	FL		

US-CL-CURRENT: 424/449; 424/448

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	K00C
Draw Desc	Image									

☐ 6. Document ID: US 6216033 B1

L5: Entry 6 of 36

File: USPT

Apr 10, 2001

US-PAT-NO: 6216033

DOCUMENT-IDENTIFIER: US 6216033 B1

TITLE: Device for transdermal electrotransport delivery of fentanyl and sufentanil

DATE-ISSUED: April 10, 2001

## INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Southam; Mary	Menlo Park	CA		
Bernstein; Keith J.	Somerville	NJ		
Noorduyn; Henk	Bergen op Zoom			NL

US-CL-CURRENT: 604/20

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	K00C
Draw Desc	Image									

☐ 7. Document ID: US 6214370 B1

L5: Entry 7 of 36

File: USPT

Apr 10, 2001

US-PAT-NO: 6214370

DOCUMENT-IDENTIFIER: US 6214370 B1

TITLE: Method and device for administering analgesics

DATE-ISSUED: April 10, 2001

## INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Nelson; Timothy S.	Elk River	MN		
Bergan; Matthew A.	Brooklyn Park	MN		

US-CL-CURRENT: 424/425; 424/423, 424/424, 424/426, 514/772.3, 604/890.1

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	K00C
Draw Desc	Image									

☐ 8. Document ID: US 6181963 B1

L5: Entry 8 of 36

File: USPT

Jan 30, 2001

US-PAT-NO: 6181963

DOCUMENT-IDENTIFIER: US 6181963 B1

TITLE: Transdermal electrotransport delivery device including a cathodic reservoir containing a compatible antimicrobial agent

DATE-ISSUED: January 30, 2001

## INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Chin; Ivan W.	Belmont	CA		
Murdock; Thomas O.	Vadnais Heights	MN		
Cormier; Michel J. N.	Mountain View	CA		

US-CL-CURRENT: 604/20; 607/152

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	KVMC
Draw Desc	Image									

☐ 9. Document ID: US 6171294 B1

L5: Entry 9 of 36

File: USPT

Jan 9, 2001

US-PAT-NO: 6171294

DOCUMENT-IDENTIFIER: US 6171294 B1

TITLE: Method and device for transdermal electrotransport delivery of fentanyl and sufentanil

DATE-ISSUED: January 9, 2001

## INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Southam; Mary	Portola Valley	CA		
Bernstein; Keith J.	Somerville	NJ		
Noorduyn; Henk	Bergen op Zoom			NL

US-CL-CURRENT: 604/501; 604/20

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	KVMC
Draw Desc	Image									

☐ 10. Document ID: US 6139866 A

L5: Entry 10 of 36

File: USPT

Oct 31, 2000

US-PAT-NO: 6139866

DOCUMENT-IDENTIFIER: US 6139866 A

TITLE: Tape formulation for percutaneous administration containing fentanyl

DATE-ISSUED: October 31, 2000

## INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Chono; Hideharu	Tsukuba			JP
Terahara; Takaaki	Tsukuba			JP
Suzuki; Tatsuaki	Tsukuba			JP
Higo; Naruhito	Tsukuba			JP

US-CL-CURRENT: [424/443](#); [424/445](#), [424/446](#), [424/448](#), [424/449](#), [514/352](#)

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	KOMIC
Draw Desc	Image									

☐ 11. Document ID: US 6103258 A

L5: Entry 11 of 36

File: USPT

Aug 15, 2000

US-PAT-NO: 6103258

DOCUMENT-IDENTIFIER: US 6103258 A

TITLE: Salts and bases of the 17-(Cyclopropylmethyl)-4,5  
alpha-epoxy-6-Methylenemorphinan-3,14 diol molecule for optimizing dopamine  
homeostasis during administration of opioid analgesics

DATE-ISSUED: August 15, 2000

## INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Simon; David Lew	Mansfield Center	CT	06250	

US-CL-CURRENT: [424/449](#); [424/493](#), [424/497](#)

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	KOMIC
Draw Desc	Image									

☐ 12. Document ID: US 6024976 A

L5: Entry 12 of 36

File: USPT

Feb 15, 2000

US-PAT-NO: 6024976

DOCUMENT-IDENTIFIER: US 6024976 A

**\*\* See image for Certificate of Correction \*\***

TITLE: Solubility parameter based drug delivery system and method for altering drug  
saturation concentration

DATE-ISSUED: February 15, 2000

## INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Miranda; Jesus	Miami	FL		
Sablotsky; Steven	Miami	FL		

US-CL-CURRENT: 424/449; 424/448

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments
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KVMC

☐ 13. Document ID: US 6004577 A

L5: Entry 13 of 36

File: USPT

Dec 21, 1999

US-PAT-NO: 6004577

DOCUMENT-IDENTIFIER: US 6004577 A

TITLE: Enhanced electrotransport of therapeutic agents having polybasic anionic counter ions

DATE-ISSUED: December 21, 1999

## INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Murdock; Thomas O.	Vadnais Heights	MN	55127	

US-CL-CURRENT: 424/443; 424/400, 424/448, 424/449, 514/318, 514/772, 514/788

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments
Draw Desc	Image								

KVMC

☐ 14. Document ID: US 5980927 A

L5: Entry 14 of 36

File: USPT

Nov 9, 1999

US-PAT-NO: 5980927

DOCUMENT-IDENTIFIER: US 5980927 A

TITLE: Method and apparatus for administering analgesics, and method for making same device

DATE-ISSUED: November 9, 1999

## INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Nelson; Timothy S.	Elk River	MN		
Bergan; Matthew A.	Brooklyn Park	MN		

US-CL-CURRENT: 424/425; 424/423, 424/424, 424/426, 514/772.3, 604/890.1

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments
Draw Desc	Image								

KVMC

☐ 15. Document ID: US 5843014 A

L5: Entry 15 of 36

File: USPT

Dec 1, 1998



US-PAT-NO: 5843014

DOCUMENT-IDENTIFIER: US 5843014 A

TITLE: Display for an electrotransport delivery device

DATE-ISSUED: December 1, 1998

## INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Lattin; Gary A.	Forest Lake	MN		
Bernstein; Keith J.	Somerville	NJ		

US-CL-CURRENT: 604/20; 604/500

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	KWIC
Draw Desc	Image									

☐ 16. Document ID: US 5830505 A

L5: Entry 16 of 36

File: USPT

Nov 3, 1998

US-PAT-NO: 5830505

DOCUMENT-IDENTIFIER: US 5830505 A

TITLE: Active ingredient patch

DATE-ISSUED: November 3, 1998

## INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Fischer; Wilfried	Holzkirchen			DE
Klokkers; Karin	Holzkirchen			DE

US-CL-CURRENT: 424/487; 424/449, 424/486

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	KWIC
Draw Desc	Image									

☐ 17. Document ID: US 5733571 A

L5: Entry 17 of 36

File: USPT

Mar 31, 1998

US-PAT-NO: 5733571

DOCUMENT-IDENTIFIER: US 5733571 A

TITLE: Transdermal patch for comparative evaluations

DATE-ISSUED: March 31, 1998

## INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Sackler; David	Greenwich	CT		

US-CL-CURRENT: 424/449; 424/448

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	KMOC
Draw Desc	Image									

☐ 18. Document ID: US 5683711 A

L5: Entry 18 of 36

File: USPT

Nov 4, 1997

US-PAT-NO: 5683711

DOCUMENT-IDENTIFIER: US 5683711 A

TITLE: Active ingredient patch

DATE-ISSUED: November 4, 1997

## INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Fischer; Wilfried	Holzkirchen			DE
Klokkers; Karin	Holzkirchen			DE

US-CL-CURRENT: 424/449; 424/487

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	KMOC
Draw Desc	Image									

☐ 19. Document ID: US 5656286 A

L5: Entry 19 of 36

File: USPT

Aug 12, 1997

US-PAT-NO: 5656286

DOCUMENT-IDENTIFIER: US 5656286 A

TITLE: Solubility parameter based drug delivery system and method for altering drug saturation concentration

DATE-ISSUED: August 12, 1997

## INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Miranda; Jesus	Miami	FL		
Sablotsky; Steven	Miami	FL		

US-CL-CURRENT: 424/449; 424/448

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	KMOC
Draw Desc	Image									

☐ 20. Document ID: US 5464387 A

L5: Entry 20 of 36

File: USPT

Nov 7, 1995

US-PAT-NO: 5464387

DOCUMENT-IDENTIFIER: US 5464387 A

TITLE: Transdermal delivery device

DATE-ISSUED: November 7, 1995

## INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Haak; Ronald P.	Menlo Park	CA		
Theeuwes; Felix	Los Altos Hills	CA		
Gyory; J. Richard	San Jose	CA		
Lattin; Gary A.	Forest Lake	MN		

US-CL-CURRENT: 604/20; 604/890.1

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	KIMC
Draw Desc	Image									

☐ 21. Document ID: US 5273757 A

L5: Entry 21 of 36

File: USPT

Dec 28, 1993

US-PAT-NO: 5273757

DOCUMENT-IDENTIFIER: US 5273757 A

**\*\* See image for Certificate of Correction \*\***

TITLE: Apparatus for the delivery of substances, processes for the production thereof and use thereof

DATE-ISSUED: December 28, 1993

## INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Jaeger; Halvor	Neu-Ulm			DE
Hoffmann; Hans-Rainer	Neuwied			DE
Meconi; Reinhold	Neuwied			DE
Klein; Robert-Peter	Neuwied			DE

US-CL-CURRENT: 424/448; 424/449

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	KIMC
Draw Desc	Image									

☐ 22. Document ID: US 5203768 A

L5: Entry 22 of 36

File: USPT

Apr 20, 1993

US-PAT-NO: 5203768

DOCUMENT-IDENTIFIER: US 5203768 A

TITLE: Transdermal delivery device

DATE-ISSUED: April 20, 1993

## INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Haak; Ronald P.	San Jose	CA		
Theeuwes; Felix	Los Altos	CA		
Gyory; J. Richard	San Jose	CA		

US-CL-CURRENT: 604/20; 604/501, 607/152

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	KMIC
Draw Desc	Image									

☐ 23. Document ID: US 5186939 A

L5: Entry 23 of 36

File: USPT

Feb 16, 1993

US-PAT-NO: 5186939

DOCUMENT-IDENTIFIER: US 5186939 A

**\*\* See image for Certificate of Correction \*\***

TITLE: Laminated composite for transdermal administration of fentanyl

DATE-ISSUED: February 16, 1993

## INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Cleary; Gary W.	San Mateo	CA		
Roy; Samir D.	Redwood City	CA		

US-CL-CURRENT: 424/448; 424/447, 424/449

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	KMIC
Draw Desc	Image									

☐ 24. Document ID: US 5135753 A

L5: Entry 24 of 36

File: USPT

Aug 4, 1992

US-PAT-NO: 5135753

DOCUMENT-IDENTIFIER: US 5135753 A

**\*\* See image for Certificate of Correction \*\***

TITLE: Method and therapeutic system for smoking cessation

DATE-ISSUED: August 4, 1992

## INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Baker; R. W.	Palo Alto	CA		
Santus; Gian C.	Milan			IT
Vintilla-Friedman; S.	Cupertino	CA		

US-CL-CURRENT: 424/435; 424/434, 424/443, 424/447, 424/448, 424/449, 514/343, 514/813

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments
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KVMC

☐ 25. Document ID: US 5006342 A

L5: Entry 25 of 36

File: USPT

Apr 9, 1991

US-PAT-NO: 5006342

DOCUMENT-IDENTIFIER: US 5006342 A

TITLE: Resilient transdermal drug delivery device

DATE-ISSUED: April 9, 1991

## INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Cleary; Gary W.	San Mateo	CA		
Roy; Samir	Redwood City	CA		

US-CL-CURRENT: 424/445; 424/447, 424/448

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments
Draw Desc	Image								

KVMC

☐ 26. Document ID: US 4911916 A

L5: Entry 26 of 36

File: USPT

Mar 27, 1990

US-PAT-NO: 4911916

DOCUMENT-IDENTIFIER: US 4911916 A

**\*\* See image for Certificate of Correction \*\***

TITLE: Diffusion matrix for transdermal drug administration and transdermal drug delivery devices including same

DATE-ISSUED: March 27, 1990

## INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Cleary; Gary W.	San Mateo	CA		

US-CL-CURRENT: 424/449; 424/447, 424/448

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments
Draw Desc	Image								

KVMC

☐ 27. Document ID: US 4906463 A

L5: Entry 27 of 36

File: USPT

Mar 6, 1990

US-PAT-NO: 4906463

DOCUMENT-IDENTIFIER: US 4906463 A

TITLE: Transdermal drug-delivery composition

DATE-ISSUED: March 6, 1990

## INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Cleary; Gary W.	San Mateo	CA		
Roy; Samir	Redwood City	CA		

US-CL-CURRENT: [424/449](#); [514/182](#), [514/329](#), [514/785](#), [514/947](#)

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	KMMC
Draw Desc	Image									

☐ 28. Document ID: US 4588580 A

L5: Entry 28 of 36

File: USPT

May 13, 1986

US-PAT-NO: 4588580

DOCUMENT-IDENTIFIER: US 4588580 A

**\*\* See image for Certificate of Correction \*\*****\*\* See image for Reexamination Certificate \*\***

TITLE: Transdermal administration of fentanyl and device therefor

DATE-ISSUED: May 13, 1986

## INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Gale; Robert M.	Los Altos	CA		
Goetz; Victor	Palo Alto	CA		
Lee; Eun S.	Redwood City	CA		
Taskovich; Lina T.	Palo Alto	CA		
Yum; Su I.	Los Altos	CA		

US-CL-CURRENT: [424/449](#); [514/316](#), [514/329](#), [604/288.01](#), [604/304](#), [604/307](#)

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	KMMC
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☐ 29. Document ID: WO 3018075 A2

L5: Entry 29 of 36

File: EPAB

Mar 6, 2003

PUB-NO: WO003018075A2

DOCUMENT-IDENTIFIER: WO 3018075 A2

TITLE: TRANSDERMAL THERAPEUTIC SYSTEM WITH FENTANYL OR RELATED SUBSTANCES

PUBN-DATE: March 6, 2003

## INVENTOR-INFORMATION:

NAME	COUNTRY
MUELLER, WALTER	DE
HILLE, THOMAS	DE

INT-CL (IPC): A61 L 15/44  
EUR-CL (EPC): A61K009/70; A61K031/4468

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	KOMC
Draw Desc	Image									

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☐ 30. Document ID: WO 9936071 A1

L5: Entry 30 of 36

File: EPAB

Jul 22, 1999

PUB-NO: WO009936071A1  
DOCUMENT-IDENTIFIER: WO 9936071 A1  
TITLE: BIODEGRADABLE POLYMER MATRICES FOR SUSTAINED DELIVERY OF ANESTHETICS  
PUBN-DATE: July 22, 1999

INVENTOR-INFORMATION:

NAME	COUNTRY
LEE, HAI BANG	KR
KHANG, GIL SON	KR
CHO, JIN CHUL	KR
RHEE, JOHN MOON	KR

INT-CL (IPC): A61 K 31/445; A61 K 9/00; A61 K 9/14; A61 K 9/22; A61 K 9/56; A61 K 9/70; A61 K 47/30  
EUR-CL (EPC): A61K009/16; A61K031/4468

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	KOMC
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Terms	Documents
fentanyl same polymer	36

Display Format:

[Previous Page](#)

[Next Page](#)

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L5: Entry 31 of 36

File: DWPI

Mar 6, 2003

DERWENT-ACC-NO: 2003-402838

DERWENT-WEEK: 200338

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TITLE: Transdermal therapeutic system for treatment of pain contains fentanyl, mostly present in microreservoirs in a polymer layer, to protect against overdosing

INVENTOR: MUELLER, W

PRIORITY-DATA: 2001DE-1041651 (August 24, 2001)

## PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
WO 2003018071 A1	March 6, 2003	G	029	A61L000/00
DE 10141651 A1	March 13, 2003		000	A61L015/44

INT-CL (IPC): A61 L 0/00; A61 L 15/44

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	KWIC
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☐ 32. Document ID: KR 2002009845 A

L5: Entry 32 of 36

File: DWPI

Feb 2, 2002

DERWENT-ACC-NO: 2002-580728

DERWENT-WEEK: 200262

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TITLE: Formulation containing certain drug with skin penetrating ability and its formulation

INVENTOR: RHEE, Y G

PRIORITY-DATA: 2000KR-0043372 (July 27, 2000)

## PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
KR 2002009845 A	February 2, 2002		001	A61K009/70

INT-CL (IPC): A61 K 9/70

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	KWIC
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☐ 33. Document ID: WO 9936071 A1 JP 2002509107 W KR 99065922 A EP 1049469 A1 KR 289471 B

L5: Entry 33 of 36

File: DWPI

Jul 22, 1999

DERWENT-ACC-NO: 1999-458389

DERWENT-WEEK: 200236

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TITLE: Compositions for sustained release of fentanyl-type anesthetics useful for pain control, e.g. pre- and post-operative pain or pain associated with cancer

INVENTOR: CHO, J C; KHANG, G S ; LEE, H B ; RHEE, J M ; KANG, G S ; LEE, J M

PRIORITY-DATA: 1998KR-0001442 (January 19, 1998)

## PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
WO 9936071 A1	July 22, 1999	E	025	A61K031/445
JP 2002509107 W	March 26, 2002		021	A61K031/4468
KR 99065922 A	August 16, 1999		000	A61K009/16
EP 1049469 A1	November 8, 2000	E	000	A61K031/445
KR 289471 B	September 17, 2001		000	A61K047/30

INT-CL (IPC): A61 K 9/00; A61 K 9/14; A61 K 9/16; A61 K 9/22; A61 K 9/56; A61 K 9/70; A61 K 31/445; A61 K 31/4468; A61 K 47/30; A61 P 23/02

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	KVMC
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☐ 34. Document ID: US 5186939 A

L5: Entry 34 of 36

File: DWPI

Feb 16, 1993

DERWENT-ACC-NO: 1993-075675

DERWENT-WEEK: 199309

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TITLE: Solid state laminated composite for transdermal fentanyl admin. - comprises fentanyl-impermeable backing layer and an adhesive reservoir layer contg. fentanyl dissolved in amine resistant poly:di:methyl-siloxane!

INVENTOR: CLEARY, G W; ROY, S D

PRIORITY-DATA: 1989US-0425041 (October 20, 1989), 1987US-0041793 (April 23, 1987), 1987US-0079801 (July 30, 1987), 1988US-0179423 (April 8, 1988), 1988US-0211377 (June 24, 1988), 1990US-0588702 (September 27, 1990), 1991US-0700563 (May 15, 1991), 1992US-0823017 (January 15, 1992)

## PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
US 5186939 A	February 16, 1993		005	A61F013/02

INT-CL (IPC): A61F 13/02

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	KVMC
Draw Desc	Clip Img	Image								

☐ 35. Document ID: EP 483105 A EP 483105 B1 DE 3751383 G ES 2075966 T3 EP 483105 B2

L5: Entry 35 of 36

File: DWPI

Apr 29, 1992

DERWENT-ACC-NO: 1992-143143

DERWENT-WEEK: 200108

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TITLE: Transdermal drug delivery device - contg. percutaneous absorption enhancer comprising fatty acid ester of alkane diol, used partic. for oestradiol or fentanyl

INVENTOR: CLEARY, G W

PRIORITY-DATA: 1987US-0079801 (July 30, 1987), 1986US-0945356 (December 22, 1986), 1987US-0041793 (April 23, 1987)

## PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
EP 483105 A	April 29, 1992	E	015	
EP 483105 B1	June 28, 1995	E	015	A61K009/70
DE 3751383 G	August 3, 1995		000	A61K009/70
ES 2075966 T3	October 16, 1995		000	A61K009/70
EP 483105 B2	January 17, 2001	E	000	A61K009/70

INT-CL (IPC): A61K 9/70; A61K 47/14

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	KMIC
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☐ 36. Document ID: WO 8910108 A NO 306444 B1 PT 90240 A AU 8938530 A US 4906463 A EP 409910 A FI 9004943 A DK 9002410 A NO 9004317 A US 5006342 A JP 03504977 W AU 633500 B EP 272987 B1 AU 640383 B CA 1325381 C PT 101320 A EP 409910 B1 EP 409910 A4 DE 68921473 E JP 96016054 B2 JP 08040937 A JP 2535731 B2 KR 9501968 B1

L5: Entry 36 of 36

File: DWPI

Nov 2, 1989

DERWENT-ACC-NO: 1989-339751

DERWENT-WEEK: 199953

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TITLE: Laminated composite for trans dermal admin. of fentanyl - comprises reservoir layer comprising fentanyl, propylene glycol mono:laurate and poly:methyl siloxane on occlusive backing

INVENTOR: CLEARY, G W; ROY, S D

PRIORITY-DATA: 1989US-0309287 (February 10, 1989), 1986US-0945356 (December 22, 1986), 1987US-0041793 (April 23, 1987), 1987US-0079801 (July 30, 1987), 1988US-0179423 (April 8, 1988), 1988US-0179432 (April 8, 1988), 1988US-0211377 (June 24, 1988)

## PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
WO 8910108 A	November 2, 1989	E	000	
NO 306444 B1	November 8, 1999		000	A61F013/02
PT 90240 A	November 10, 1989		022	
AU 8938530 A	November 24, 1989		000	
US 4906463 A	March 6, 1990		010	
EP 409910 A	January 30, 1991		000	
FI 9004943 A	October 8, 1990		000	
DK 9002410 A	October 5, 1990		000	
NO 9004317 A	November 28, 1990		000	
US 5006342 A	April 9, 1991		012	
JP 03504977 W	October 31, 1991		000	
AU 633500 B	February 4, 1993		000	A61M037/00
EP 272987 B1	March 24, 1993	E	017	A61K009/70
AU 640383 B	August 26, 1993		000	A61K009/70
CA 1325381 C	December 21, 1993		000	A61K009/70
PT 101320 A	July 29, 1994		000	A61K009/70
EP 409910 B1	March 1, 1995	E	007	A61F013/02
EP 409910 A4	August 21, 1991		000	
DE 68921473 E	April 6, 1995		000	A61F013/02
JP 96016054 B2	February 21, 1996		011	A61K009/70
JP 08040937 A	February 13, 1996		011	A61K047/14
JP 2535731 B2	September 18, 1996		011	A61K047/14
KR 9501968 B1	March 8, 1995		000	A61F013/02

B1 INT-CL (IPC): A61F 13/00; A61F 13/02; A61K 9/70; A61K 31/44; A61K 31/445; A61K 31/565; A61K 47/08; A61K 47/14; A61L 15/03; A61L 15/16; A61M 35/00; A61M 37/00; B32B 5/18; B32B 7/10; B32B 27/04

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36

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